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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,171	12/21/2001	Agapios K. Agapiou	1999U024D1.US	9429
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UNIVATION TECHNOLOGIES, LLC				
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HOUSTON, TX 77056				
EXAMINER				
MCDONOUGH, JAMES E				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
10/24/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/026,171

**Applicant(s)**

AGAPIOU ET AL.

**Examiner**

JAMES E. MCDONOUGH

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3, 5-10, 14-22 and 24-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5-10, 14-22 and 24-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Original Rejections

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3, 5-10, 14-22 and 24-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uwai (USP 6,420,501) as cited in and for the reasons of record given in paragraph 5 of the Office action dated 11/14/2006 and the reasons below.

Regarding claims 1, 3, 6-10, 14, 18-22, 24-32, and 34-38.

Uwai teaches (table 1) that the metallocenes and activator can be combined at temperatures up to 100 C and for times up to 60 minutes.

With respect to the temperature of step (b) of 30-75 C. It is noted that Uwai teaches a temperature for this step of 100 C, although this temperature is 25 C higher, the claimed temperature would have been the result of routine experimentation by one of ordinary skill in the art in an effort to optimize the catalyst activity while reducing reactor fouling by taking into consideration the polymerization parameters (i.e. time, temperature, reactor type, pressure, etc.). It is further noted however that the addition of one component that is up to 125 C to another components that is up to 75 C, will result in a new composition with a temperature higher than 75 C, assuming equal heat capacities and equal volume solutions the resultant temperature would actually be 100 C.

Regarding claim 5

The solubility of a catalyst in toluene is a property of the catalyst and as such is inseparable from the catalyst itself, and since the reference discloses catalyst that read on the instant invention, it would be expected to have these properties absent any evidence to the contrary.

Regarding claim 15

Uwai teaches drying the solid catalyst (column 17, lines 64-67).

Regarding claim 33

Although, Uwai does not teach the claimed drying temperature, Uwai does disclose drying the product, however, the claimed drying temperature would have been the result of routine experimentation by one of ordinary skill in the art in an effort to optimize the catalyst activity while reducing reactor fouling by taking into consideration

the polymerization parameters (i.e. time, temperature, reactor type, pressure, etc.), absent any showing of unexpected results.

Claims 16 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Uwai (USP 6,420,501) as applied to claims 1, 3, 5-10, 14, 15, 18-22, 24-432, and 34-38 above, and further in view of Lee et al. (USP 5,367,037).

Although, Uwai is silent as to whether the catalyst is reslurried in mineral oil, Uwai does disclose/suggest the rest of the limitations of the claims, however, because Lee teaches that it is preferable to add the catalyst as either a solid or a mineral oil slurry, it would have been prima facie obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Uwai, by incorporating the catalyst as a mineral oil slurry, as suggested by Lee, with a reasonable expectation of success.

### **Response to Arguments**

Applicants argue against the rejection over Razavi I.

Applicants arguments against table 4 of Razavi are persuasive, therefore the all rejections relying on Razavi have been withdrawn, however, it is noted that examiner reserves the right to reintroduce Razavi reference at a later time, as it is still deemed relevant to the instant invention.

Applicants argue against the rejection over Uwai.

Applicants argue that Uwai teaches that heating of the catalyst with the support lowers activity, and as such Uwai teaches away from the instant invention. This is not persuasive because:

- 1.) Uwai teaches that they can be heated (as admitted by applicants), even though it teaches that heating lowers activity, this is still teaching the heating method, although it is not preferred.
- 2.) The fact that Uwai gets lower activity than the instant invention is not completely unexpected as slight changes can sometimes have great affect, and it is noted there are many other variables than the heating step alone that would change the activity of the made catalyst (i.e. such as the specific catalyst used).
- 3.) For a reference to teach away there must be some teaching or suggestion that the proposed modification will not work.
- 4.) This higher activity is not fully commensurate with the scope of the claimed invention.

Applicants argue that the reference does not teach the components being mixed within the particular temperature range and this shows an unexpected result as was demonstrated in the supplemental declaration. This is not persuasive because the declaration in no way showed unexpected results as photos of the results of one example of the instant invention and one example of the reference, does not show these unexpected results for the broad range of conditions and catalyst claimed in the instant invention.

Applicants argue against the rejection over Uwai in view of Lee.

Applicants argue that since Uwai is deficient than the combination also is deficient. This is not persuasive for the reason given above.

It is further noted that applicants have not demonstrated that the references will first mix the ingredients and then heat, vs. adding a reaction product to a heated vessel of support, as it is known that the metal catalyst are sensitive and are generally transferred to the support soon after making.

### **Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES E. MCDONOUGH whose telephone number is (571)272-6398. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael A Marcheschi/  
Primary Examiner, Art Unit 1793

JEM 10/20/2008